

# OROSORB

## MATERIAL SAFETY DATA SHEET

Revised May 22, 2003

---

### I. PRODUCT IDENTIFICATION

**Trade Name:** OROSORB

**NFPA 704M/HMIS Rating:**

1/1 Health    0/0 Flammability    0/0 Reactivity    0 Other  
(0=Insignificant    1=Slight    2=Moderate    3=High    4=Extreme)

---

### II. COMPOSITION/ INGREDIENT INFORMATION

Our hazard evaluation has identified one or more hazardous ingredient(s) under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Their identity is being claimed a trade secret. Consult Section 15 for the nature of the hazard(s).

**Ingredient(s):** Ethoxylated Alcohol 5-10%

---

### III. HAZARD IDENTIFICATION

**NOTE:** The application of this product in diluted form renders the product **non-hazardous**. The data below is for the **undiluted product**.

**Emergency Overview:**

Caution! May cause irritation to skin and eyes. Avoid contact with skin, eyes, and clothing. Avoid prolonged or repeated breathing of vapor. Use with adequate ventilation. Do not take internally.

Empty containers may contain residual product. Do not reuse container unless properly reconditioned.

**Primary Route(s) of Exposure:** Eye, Skin, and Inhalation.

**Eye Contact:** Can cause mild to moderate irritation.

**Skin Contact:** May cause irritation with prolonged contact.

**Inhalation:** Prolonged inhalation of mist or vapor may cause nausea, dizziness, light-headedness, vomiting or unconsciousness depending on the length of exposure and the first aid action given.

**Symptoms of Exposure:** A review of available data does not identify any symptoms from exposure not previously mentioned.

**Aggravation of Existing Conditions:**

A review of available data does not identify any worsening of existing conditions.

---

**IV. FIRST AID INFORMATION**

**Eyes:** Flush with water for 15 minutes. Call a physician.

**Skin:** Flush with water for 15 minutes. If irritation develops, call a physician.

**Ingestion:** Do not induce vomiting, give water. Call a physician.

**Inhalation:** Remove to fresh air. Treat symptoms. Call a physician.

**NOTE TO PHYSICIAN:** Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

**CAUTION:** If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

---

**V. FIRE FIGHTING**

**Flash Point:** >200 ° F (>93° C)

**Extinguishing Media:** Based on the NFPA guide, use dry chemical, foam, carbon dioxide or other extinguishing agent suitable for Class B fires. Use water to cool containers exposed to fire. For large fires, use water spray or fog, thoroughly drenching the burning material.

**Unusual fire & Explosion Hazard:** May evolve SO<sub>x</sub> under fire conditions.

---

**VI. ACCIDENTAL RELEASE MEASURES**

**Small liquid spills:** Contain with absorbent material, such as clay, soil or any commercially available absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Refer to CERCLA in Section 15.

**Large liquid spills:** Dike to prevent further movement and reclaim into recovery or salvage drums or tank truck for disposal. Refer to CERCLA in Section 15.

For large indoor spills, evacuate employees and ventilate area. Those responsible for control and recovery should wear the protective equipment specified in Section 8.

---

**VII. HANDLING AND STORAGE**

**Storage:** Keep container closed when not in use.

---

## VIII. EXPOSURE CONTROLS/ PERSONAL PROTECTION

**Respiratory Protection:** Respiratory protection is not normally needed since the volatility and toxicity are low. If significant vapors are generated, use either a chemical cartridge respirator or supplied air.

For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a positive pressure, self-contained breathing apparatus is recommended.

**Ventilation:** General ventilation is recommended.

**Protective Equipment:** Use impermeable gloves and chemical splash goggles when attaching feeding equipment, doing maintenance or handling product. Examples of impermeable gloves available on the market are neoprene, nitrile, PVC, natural rubber, viton and butyl (compatibility studies have not been performed). The availability of an eye wash fountain and safety shower is recommended. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

### **Human Exposure Characterization:**

Based on Citrus Oil Products recommended product application and our recommended personal protective equipment, the potential human exposure is: LOW

---

## IX. PHYSICAL AND CHEMICAL PROPERTIES

|   |   |
|---|---|
| <b>Color:</b>                           | Blue-Green                              |
| <b>Form:</b>                            | Liquid                                  |
| <b>Odor:</b>                            | Orange/ Citrus                          |
| <b>Density:</b>                         | 8.5 lbs. / gal.                         |
| <b>Solubility in Water:</b>             | Completely                              |
| <b>pH (Neat):</b>                       | 7.0 – 8.5 (ASTM D-70)                   |
| <b>Boiling Point:</b>                   | >200 °F (93° C)@ 760 mm Hg (calculated) |
| <b>Flash Point:</b>                     | Greater than 200 °F (93° C)             |
| <b>Freeze Point:</b>                    | 27 °F (-3 °C)                           |
| <b>Wt. % Volatile:</b>                  | Less than 5%                            |
| <b>Volatile Organic Compound (VOC):</b> | 0.37 lbs. / gal. (EPA Method 24)        |

These physical properties are typical values for this product and should not be considered as guarantees of any specific lot.

---

## X. STABILITY AND REACTIVITY

**Incompatibility:** Avoid contact with Ferric Chloride which can generate heat and the release of toxic fumes.

**Thermal Decomposition Products:** In the event of combustion CO, CO<sub>2</sub>, SO<sub>x</sub>, may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

---

## **XI. TOXICOLOGICAL INFORMATION**

**Toxicity Studies:** No toxicity studies have been conducted on this product.

**Human Hazard characterization:** Based on our hazard characterization, the potential human hazard is: LOW.

---

## **XII. ECOLOGICAL INFORMATION**

**Environmental Hazard and Exposure Characterization:** Based on our hazard Characterization, the potential environmental hazard is: LOW

If released into the environment, see CERCLA in Section 15.

Based on Citrus Oil Products recommended product application and the product's characteristics, the potential environmental exposure is: LOW

---

## **XIII. DISPOSAL CONSIDERATIONS**

**Disposal:** If this product becomes a waste, it does not meet the criteria of a hazardous waste as defines under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous liquid waste, it should be solidified with stabilizing agents (such as sand, fly ash, or cement) so that no free liquid remains before disposal to an industrial waste landfill. A non-hazardous liquid waste can also be incinerated in accordance with local, state and federal regulations.

---

## **XIV. TRANSPORTATION INFORMATION**

PROPER SHIPPING NAME/HAZARD CLASS MAY VARY BY PACKAGING, PROPERTIES, AND MODE OF TRANSPORTATION. TYPICAL PROPER SHIPPING NAMES FOR THIS PRODUCT ARE: **Shipped as class 55 material**

**All Transportation modes:** Product is not regulated during transportation.

---

## **XV. REGULATORY INFORMATION**

**The following regulations apply to this product:**

### **FEDERAL REGULATIONS**

**OSHA Hazard Communication Rule, 29 CFR 1910.1200:** Based on our hazard evaluation, the following ingredients in this product are hazardous and the reasons are shown below:

Ethoxylated alcohol – irritant

**CERCLA/Superfund, 40 CFR 117, 302:** Notification of spills of this product is not required.

**SARA/Superfund Amendments and Reauthorization Act of 1986 (Title III):**

**Section 302- Extremely Hazardous Substances (40 CFR 355):** This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

**Sections 311 & 312- Material Safety Data Sheet Requirements (40 CFR 370):**  
Our hazard evaluation has found this product to be hazardous. The Product should be reported under the following EPA hazard categories:

- Immediate (acute) health hazard
- Delayed (chronic) health hazard
- Fire Hazard
- Sudden release of pressure hazard
- Reactive hazard

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

**Section 313- List of Toxic Chemicals (40 CFR 372):** This product does not contain ingredients on the List of Toxic Chemicals.

**Toxic Substances Control Act (TSCA):** The chemical ingredients in this product are on the 8 (b) Inventory List (40 CFR 710).

**Resource Conservation and Recovery Act (RCRA), (40 CFR 261 Subpart C & D):**  
Consult section 13 for RCRA classification.

**Federal Water Pollution Control Act, Clean Water Act, (40 CFR 401.15 formerly Sec. 307, 40 CFR 116 / formerly Sec. 311):** None of the ingredients are specifically listed.

**Clean Air Act, Sec. 111 (40 CFR 60), Sec. 112 (40 CFR 61, 1990 Amendments), Sec. 611 (40 CFR 82, Class I & II Ozone Depleting Substances):** This product does not contain ingredients covered by the Clean Air Act.

**STATE REGULATIONS**

**California Proposition 65:** This product does not contain any chemicals which require warning under California Proposition 65.

**Michigan Critical Materials:** This product does not contain ingredients listed on the Michigan Critical Materials Register.

**State Right to Know Laws:** The following ingredient(s) are disclosed for compliance State Right to Know Laws:

|               |                     |
|---------------|---------------------|
| Alkyl Sulfate | Trade Secret        |
| Orange Oil    | Naturally occurring |
| Oxyalkylate   | Trade Secret        |

Na Dodecylbenzenesulfonate  
Water

25155-30-0  
7732-18-5

## INTERNATIONAL REGULATIONS

This is a WHMIS controlled product under The House of Commons of Canada Bill C-70 (Class D2B). The product contains the following substance(s), from the Ingredient Disclosure List or has been evaluated based on its toxicological properties, to contain the following hazardous ingredient(s):

| <u>Chemical Name</u> | <u>CAS #</u>        | <u>% Concentration</u> |
|----------------------|---------------------|------------------------|
| Ethoxylated Alcohol  | Proprietary         | 5-10                   |
| Orange Oil           | Naturally Occurring | 1-5                    |

---

## XVI. RISK CHARACTERIZATION

Due to our commitment to Product Stewardship, we have evaluated the human and environmental hazards and exposures of this product. Based on our recommended use of this product, we have characterized the product's general risk. This information should provide assistance for your own risk management practices. We have evaluated our product's risk as follows:

\*Human risk:                      LOW  
\*Environmental risk:              LOW

Any use inconsistent with Citrus Oil Products recommendations may affect our risk characterization. Our sales representative will assist you to determine if your product application is consistent with our recommendations. Together we can implement an appropriate risk management process.

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

---

## XVII. REFERENCES

Maryland (CD-ROM), Micromedex, Inc., Englewood, CO.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C. (CD-ROM version), Micromedex, Inc., Englewood, CO.

Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

Title 29 Code of Federal Regulations, Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, Ohio (CD-ROM version), Micromedex, Inc., Englewood, CO.

Shepard's Catalog of Teratogenic Agents (CD-ROM version), Micromedex, Inc., Englewood, CO.

Suspect Chemicals Sourcebook (a guide to industrial chemicals covered under major regulatory and advisory programs), Roytech Publications (a Division of Ariel Corporation), Bethesda, MD.

The Teratogen Information System, University of Washington, Seattle, Washington (CD-ROM version), Micromedex, Inc., Englewood CO.

**FOR EMERGENCY SPILL OR FIRST AID INFORMATION ONLY:**

**In case of emergency call:                   CHEMTREC  
  1-800-424-9300**

**For non-emergencies dial:                   CHEMTREC  
  1-800-262-8200**

**International Calls :                           CHEMTREC  
  703-527-3887 (collect calls accepted)**

**For all other inquiries, please call: Citrus Oil Products, Inc.  
  (765) 447-1579 Phone  
  (765) 447-3549 Fax  
  www.citrusoilproducts.com**